



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

Southeast Regional Office • 20 Riverside Drive, Lakeville MA 02347 • 508-946-2700

Charles D. Baker  
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Secretary

Martin Suuberg  
Commissioner

June 4, 2015

Mr. Kenneth Joblon  
Brittany Dyeing & Printing Corp.  
1357 E. Rodney French Blvd.  
New Bedford, MA 02744

**RE: NEW BEDFORD**  
Transmittal No.: X264779  
Application No.: SE-15-008  
Class: *SM-50*  
FMF No.: 130019  
**AIR QUALITY PLAN APPROVAL**

Dear Mr. Joblon:

The Massachusetts Department of Environmental Protection ("MassDEP"), Bureau of Air and Waste, has reviewed your Limited Plan Application ("Application") listed above. This Application concerns the proposed construction and operation of a new fabric finishing tenter frame at your textile processing facility located at 1357 E. Rodney French Boulevard in New Bedford, Massachusetts ("Facility").

This Application was submitted in accordance with 310 CMR 7.02 Plan Approval and Emission Limitations as contained in 310 CMR 7.00 "Air Pollution Control," regulations adopted by MassDEP pursuant to the authority granted by Massachusetts General Laws, Chapter 111, Section 142 A-J, Chapter 21C, Section 4 and 6, and Chapter 21E, Section 6. MassDEP's review of your Application has been limited to air pollution control regulation compliance and does not relieve you of the obligation to comply with any other regulatory requirements.

MassDEP has determined that the Application is administratively and technically complete and that the Application is in conformance with the Air Pollution Control regulations and current air pollution control engineering practice, and hereby grants this **Plan Approval** for said Application, as submitted, subject to the conditions listed below.

Please review the entire Plan Approval, as it stipulates the conditions with which the Facility owner/operator ("Permittee") must comply in order for the Facility to be operated in compliance with this Plan Approval.

## **1. DESCRIPTION OF FACILITY AND APPLICATION**

Brittany Dyeing and Printing Corporation operates a textile printing and finishing facility in New Bedford, MA. Various textiles (e.g. cotton, polyester) are washed, dyed, printed, and finished to the customer's specifications.

On March 16, 1994, the MassDEP approved Application No. 4P92012, submitted in accordance with 310 CMR 7.18(17) Reasonable Available Control Technology which established volatile organic compound (VOC) "as applied" formulation limits for fabric print colors, fabric finishing mixtures and fabric dyeing formulations, daily VOC emission limits and twelve month rolling period VOC emission limits.

On November 21, 1994, the MassDEP approved Application No. 4P94117, with modifications on December 15, 1994 and January 11, 1995, authorizing the alteration and subsequent operation of the existing No. 4 finishing range as Thermosol Dye Range No. 4 (Thermosol Dye Range).

Final Approval No. 4P00026, issued on May 12, 2000, limited facility-wide Hazardous Air Pollutants<sup>1</sup> (HAP) to 9.9 tons per consecutive twelve-month period for any single HAP and 24.9 tons per consecutive twelve-month period for combined HAP. Brittany is not a major source of HAP as defined in 40 CFR Part 63.2.

The Permittee is currently operating in accordance with a 50% Facility Emissions Cap Approval as approved by the MassDEP on September 2, 2009. The 50% Facility Emissions Cap Approval restricts the entire facility to 5 tons HAP (single), 12.5 tons HAP (total), 25 tons of VOC, 25 tons of Nitrogen Oxides (NO<sub>x</sub>), 50 tons of any other regulated air pollutant per consecutive twelve month period.

### **DESCRIPTION OF MODIFICATIONS**

In this application, the Permittee has proposed to de-commission and remove the existing Thermosol Dye Range and install a new Monforts Model Montex 6500-6F (or equivalent) Tenter Frame (Tenter Frame 9) for the application and drying of finishing formulations to fabrics. The drying oven portion of Tenter Frame 9 will have a 9.0 MMBtu/hr maximum heat input capacity firing natural gas and is exempt from plan approval requirements in accordance with 310 CMR 7.02(2)(b)15.

The Permittee shall vent the exhaust of the Tenter Frame 9 drying oven through a new NAPCO Model 7V (or equivalent) venturi scrubber to the existing North American Pollution Control Systems, Model 19-518, single pass, two-stage, Wet Electrostatic Precipitator (ESP No. 3) rated at 30,000 acfm @ 110°F. The venting of Tenter Frame 9 to the venturi scrubber/ESP will control visible emissions and nuisance odor and fully comply with relevant emission standards.

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<sup>1</sup> Hazardous Air Pollutants are as listed in the 1990 Clean Air Act (CAA) Amendments, Section 112(b).

The Permittee has proposed Particulate Matter (PM), VOC and HAP emission limitations for Tenter Frame 9, and will maintain the previously approved PM emission limit for ESP No. 3.

Best Available Control Technology (BACT) for the proposed Tenter Frame 9 is identified in Table 2.

## 2. EMISSION UNIT (EU) IDENTIFICATION

Each Emission Unit (EU) identified in Table 1 is subject to and regulated by this Plan Approval:

Table 1			
EU#	Description	Design Capacity	Pollution Control Device (PCD)
1	<u>Tenter Frame 9:</u> Monforts Model Montex 6500-6F (or equivalent) Tenter Frame and drying oven	150 ypm  9.0 MMBtu/hr heat input	North American Pollution Control Systems Model No. 19-518 Wet ESP and one (1) NAPCO Model 7V (or equivalent) Venturi Scrubber

**Table 1 Key:**

ESP = electrostatic precipitator

EU# = Emission Unit Number

MMBtu/hr = million British thermal units per hour

PCD = Pollution Control Device

ypm = yards per minute

## 3. APPLICABLE REQUIREMENTS

### A. OPERATIONAL, PRODUCTION and EMISSION LIMITS

The Permittee is subject to, and shall not exceed the Operational, Production, and Emission Limits as contained in Table 2 below:

Table 2			
EU#	Operational / Production Limit	Air Contaminant	Emission Limit
1	1. The Permittee shall limit VOC usage on Tenter Frame 9 to $\leq 1.0$ tons per month.	VOC	$\leq 1.0$ TPM
	2. The Permittee shall limit VOC usage on Tenter Frame 9 to $\leq 6.0$ tons per consecutive twelve-month period.		$\leq 6.0$ TPY
	3. VOC contained in finishing formulation(s) applied on Tenter Frame 9 shall not exceed 0.3 pounds per pound of solids, as applied to the substrate.		$\leq 0.3$ lbs VOC per lb solids, as applied

Table 2			
EU#	Operational / Production Limit	Air Contaminant	Emission Limit
1	4. The Permittee shall limit total HAP usage on Tenter Frame 9 to $\leq 0.3$ tons per month.	HAP	$\leq 0.3$ TPM
	5. The Permittee shall limit total HAP usage on Tenter Frame 9 to $\leq 1.6$ tons per consecutive twelve-month period.		$\leq 1.6$ TPY
	6. The Permittee shall ensure proper odor control, zero (0) percent opacity and a minimum particulate matter removal efficiency of 99% (by weight), or achieve a maximum particulate matter emission rate of $\leq 0.005$ grains per dry standard cubic foot <sup>(note 2)</sup> , from ESP No. 3 at all times while operating by: a. Maintaining a manufacturer's recommended secondary voltage of $\geq 10\text{kV}$ in ESP No. 3. b. Maintaining the following scrubber pressure differential and liquid flow rate in the Tenter Frame 9 Venturi Scrubber: 1) Scrubber inlet duct/outlet duct pressure differential $\geq 2$ inches water column 2) Scrubber liquid flow rate $\geq 50$ gallons per minute	PM (note 3)	$\leq 0.005$ gr/dscf  0.11 TPM  1.3 TPY (note 1)

**Table 2 Notes:**

Note 1: The monthly and 12 month period PM emissions are based on a PM emission rate of 0.30 lb/hr (maximum emission rate of 0.005 gr/dscf and flow of 7,100 dry standard cubic feet per minute). The gr/dscf emission rate shall be verified, when requested, by compliance emission testing.

Note 2: At low load conditions, the ESP No. 3 minimum particulate matter removal efficiency of 99% may not be achieved, but at no time shall the particulate matter emission rate exceed 0.005 grains per dry standard cubic foot.

Note 3: PM emissions are as measured at the ESP No. 3 stack.

Note 4: Standard conditions: Absolute Pressure = 760 mm Hg, Temperature = 20° C

**Table 2 Key:**

° C= degrees Celsius

EU# = emission unit number

gr/dscf = grains per dry standard cubic foot

HAP = total hazardous air pollutants

kV = kilovolts

lb(s) = pound(s)

lb/hr = pound per hour

mm Hg = millimeters of mercury

PM = total particulate matter including PM<sub>10</sub> and PM<sub>2.5</sub>

PM<sub>10</sub> = Particulate Matter less than or equal to 10 microns in diameter

PM<sub>2.5</sub> = Particulate Matter less than or equal to 2.5 microns in diameter

VOC = volatile organic compounds

TPM = tons per month

TPY = tons per consecutive 12-month period

$\geq$  = greater than or equal to

$\leq$  = less than or equal to

% = percent

**B. COMPLIANCE DEMONSTRATION**

The Permittee is subject to, and shall comply with, the monitoring, testing, record keeping, and reporting requirements as contained in Tables 3, 4, and 5 below:

<b>Table 3</b>	
<b>EU#</b>	<b>Monitoring and Testing Requirements</b>
1	1. The Permittee shall monitor VOC used on Tenter Frame 9 for each month and each consecutive twelve-month period.
	2. The Permittee shall monitor HAP used on Tenter Frame 9 for each month and each consecutive twelve-month period.
	3. The Permittee shall continuously measure, and record at least once during each operation and every four hours during ongoing operation, the following operational parameters for ESP No. 3: <ul style="list-style-type: none"> <li>a. Secondary Current (DC mA)</li> <li>b. Secondary voltage (DC kV)</li> <li>c. High Voltage Power (on/off)</li> <li>d. Fan (on/off)</li> </ul>
	4. The Permittee shall continuously measure, and record at least once during each operation and every four hours during ongoing operation, the following operational parameters for the Tenter Frame 9 Venturi Scrubber: <ul style="list-style-type: none"> <li>a. Scrubber inlet duct and outlet duct pressure differential (inches water column)</li> <li>b. Scrubber liquid flow rate (gallons per minute)</li> </ul>
	5. The Permittee shall monitor fabric finishing operations on Tenter Frame 9 in order to maintain daily production records, as defined in Table 4.
Facility-wide	6. The Permittee shall monitor all operations to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	7. If and when MassDEP requires it, the Permittee shall conduct emission testing in accordance with USEPA Reference Test Methods and regulation 310 CMR 7.13

**Table 3 Key:**

CMR = Code of Massachusetts Regulations  
EU# = emission unit number  
HAP = total hazardous air pollutants  
kV = kilovolts  
mm Hg = millimeters of mercury  
No. = number  
VOC = volatile organic compounds  
USEPA = United States Environmental Protection Agency

<b>Table 4</b>	
<b>EU#</b>	<b>Record Keeping Requirements</b>
1	1. The Permittee shall maintain daily production records for Tenter Frame 9 that clearly identifies the date, operating time, substrate, name of formulation applied, amount of formulation applied, and formulation description including as applied VOC to solids ratio.
	2. The Permittee shall maintain on site, in a form suitable for inspection (e.g. notebook), a recordkeeping system identifying the details of each individual component and/or finishing formulation used on Tenter Frame 9 including, but not limited to: process formulations data (e.g. Manufacturer's formulation data, Material Safety Data Sheet, etc.) of each process formulation used, to include formulation density, VOC content by weight, individual HAP content by weight, Total HAP content by weight, solids content by weight and other information necessary to demonstrate compliance with Table 2.
	3. The Permittee shall maintain adequate records on-site to demonstrate compliance with all operational, production, and emission limits contained in Table 2 above. Records shall also include the actual emissions of air contaminant(s) emitted for each calendar month and for each consecutive twelve month period (current month plus prior eleven months). These records shall be compiled no later than the 15 <sup>th</sup> day following each month. An electronic version of the MassDEP approved record keeping form, in Microsoft Excel format, can be downloaded at <a href="http://www.mass.gov/dep/air/approvals/aqforms.htm#report">http://www.mass.gov/dep/air/approvals/aqforms.htm#report</a> .
	4. The Permittee shall maintain records of monitoring and testing as required by Table 3.
	5. The Permittee shall maintain a copy of this Plan Approval, underlying Application and the most up-to-date SOMP for the EU(s) and PCD(s) approved herein on-site.
	6. The Permittee shall maintain a record of routine maintenance activities performed on the approved EU(s), PCD(s) and monitoring equipment. The records shall include, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed.
	7. The Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on the approved EU(s), PCD(s) and monitoring equipment. At a minimum, the records shall include: date and time the malfunction occurred; description of the malfunction; corrective actions taken; the date and time corrective actions were initiated and completed; and the date and time emission rates and monitoring equipment returned to compliant operation.
Facility wide	8. The Permittee shall maintain records to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	9. The Permittee shall maintain records required by this Plan Approval on-site for a minimum of five (5) years.
	10. The Permittee shall make records required by this Plan Approval available to MassDEP and USEPA personnel upon request.

**Table 4 Key:**  
EU# = Emission Unit Number  
PCD = Pollution Control Device

SOMP = Standard Operating and Maintenance Procedure  
USEPA = United States Environmental Protection Agency

<b>Table 5</b>	
<b>EU#</b>	<b>Reporting Requirements</b>
1	1. The Permittee shall notify the Southeast Regional Office of MassDEP, AQ Permit Chief, when the approved equipment has been installed and is operational.
	2. The Permittee shall submit to MassDEP all information required by this Plan Approval over the signature of a "Responsible Official" as defined in 310 CMR 7.00 and shall include the Certification statement as provided in 310 CMR 7.01(2)(c).
	3. The Permittee shall notify the Southeast Regional Office of MassDEP, Compliance & Enforcement Chief by telephone 508-946-2817 or fax 508-947-6557, as soon as possible, but no later than three (3) business day after discovery of an exceedance(s) of Table 2 requirements. A written report shall be submitted to Compliance & Enforcement Chief at MassDEP within ten (10) business days thereafter and shall include: identification of exceedance(s), duration of exceedance(s), reason for the exceedance(s), corrective actions taken, and action plan to prevent future exceedance(s).
	4. The Permittee shall provide a copy to MassDEP of any record required to be maintained by this Plan Approval within 30-days from MassDEP's request.
	5. The Permittee shall submit to MassDEP for approval a stack emission pretest protocol, at least 30 days prior to emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements.
	6. The Permittee shall submit to MassDEP a final stack emission test results report, within 45 days after emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements.
Facility-wide	7. The Permittee shall report to MassDEP, in accordance with 310 CMR 7.12, all information as required by the Source Registration/Emission Statement Form. The Permittee shall note therein any minor changes (under 310 CMR 7.02(2)(e), 7.03, 7.26, etc.), which did not require Plan Approval.

**Table 5 Key:**  
AQ = Air Quality  
CMR = Code of Massachusetts Regulations  
EU# = Emission Unit Number

#### **4. SPECIAL TERMS AND CONDITIONS**

The Permittee is subject to, and shall comply with, the following special terms and conditions:

- A. The Permittee shall comply with the Special Terms and Conditions as contained in Table 6 below:

<b>Table 6</b>	
<b>EU#</b>	<b>Special Terms and Conditions</b>
1	1. The Permittee shall operate the air pollution control equipment at all times while conducting fabric finishing operations on Tenter Frame 9.

<b>Table 6</b>	
<b>EU#</b>	<b>Special Terms and Conditions</b>
	2. The Permittee shall take any and all measures necessary such that the operation of Tenter Frame 9 will not result in visible emissions (i.e. zero percent opacity) exclusive of uncombined water vapor.
Facility-wide	3. The Permittee has removed the previously approved Thermosol Dying Range and hereby surrenders associated Plan Approval No. 4P94117.
	4. The Permittee shall continue to maintain the Odor Complaint and Assessment Log as established by Administrative Consent Order No. ACO-SE-07-7001, Amendment No. 2, dated June 1, 2009.
	5. Operation of the facility shall at no time result in a condition of air pollution with respect to the Department Policy regarding Allowable Ambient Levels (AALs) and Threshold Effect Exposure Levels (TELs).
	6. The Permittee shall install, calibrate, maintain, and continuously operate all monitoring equipment (e.g. voltage/current meters, differential pressure gauges, flow meters) according to manufacturer's specifications, but no less than annually.
	7. The Permittee shall take any and all measures to ensure the operation of the facility does not result in conditions that cause or contribute to a condition of air pollution as defined at 310 CMR 7.00, due to odor or other air contaminants.
	8. Any prior Plan Approvals issued under 310 CMR 7.02 shall remain in effect unless specifically changed or superseded by this Plan Approval. The Facility shall not exceed the emission limits and shall comply with approved conditions specified in the prior Plan Approval(s) unless specifically altered by this Plan Approval.

**Table 6 Key:**  
CMR = Code of Massachusetts Regulations  
EU# = Emission Unit Number

- B. The Permittee shall install and use an exhaust stack, as required in Table 7, on each of the Emission Units that is consistent with good air pollution control engineering practice and that discharges so as to not cause or contribute to a condition of air pollution. Each exhaust stack shall be configured to discharge the gases vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted gases, including but not limited to rain protection devices known as "shanty caps" and "egg beaters." The Permittee shall install and utilize exhaust stacks with the following parameters, as contained in Table 7 below, for the Emission Units that are regulated by this Plan Approval:

<b>Table 7</b>				
<b>EU#</b>	<b>Stack Height Above Ground (feet)</b>	<b>Stack Inside Exit Dimensions (feet)</b>	<b>Stack Gas Exit Velocity Range (feet per second)</b>	<b>Stack Gas Exit Temperature Range (°F)</b>
1	94	3	16-30	80-120

**Table 7 Key:**  
EU# = Emission Unit Number  
°F = Degree Fahrenheit





## **5. GENERAL CONDITIONS**

The Permittee is subject to, and shall comply with, the following general conditions:

- A. Pursuant to 310 CMR 7.01, 7.02, 7.09 and 7.10, should any nuisance condition(s), including but not limited to smoke, dust, odor or noise, occur as the result of the operation of the Facility, then the Permittee shall immediately take appropriate steps including shutdown, if necessary, to abate said nuisance condition(s).
- B. If asbestos remediation/removal will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that all removal/remediation of asbestos shall be done in accordance with 310 CMR 7.15 in its entirety and 310 CMR 4.00.
- C. If construction or demolition of an industrial, commercial or institutional building will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that said construction or demolition shall be done in accordance with 310 CMR 7.09(2) and 310 CMR 4.00.
- D. Pursuant to 310 CMR 7.01(2)(b) and 7.02(7)(b), the Permittee shall allow MassDEP and / or USEPA personnel access to the Facility, buildings, and all pertinent records for the purpose of making inspections and surveys, collecting samples, obtaining data, and reviewing records.
- E. This Plan Approval does not negate the responsibility of the Permittee to comply with any other applicable Federal, State, or local regulations now or in the future.
- F. Should there be any differences between the Application and this Plan Approval, the Plan Approval shall govern.
- G. Pursuant to 310 CMR 7.02(3)(k), MassDEP may revoke this Plan Approval if the construction work is not commenced within two years from the date of issuance of this Plan Approval, or if the construction work is suspended for one year or more.
- H. This Plan Approval may be suspended, modified, or revoked by MassDEP if MassDEP determines that any condition or part of this Plan Approval is being violated.
- I. This Plan Approval may be modified or amended when in the opinion of MassDEP such is necessary or appropriate to clarify the Plan Approval conditions or after consideration of a written request by the Permittee to amend the Plan Approval conditions.

- J. The Permittee shall conduct emission testing, if requested by MassDEP, in accordance with USEPA Reference Test Methods and regulation 310 CMR 7.13. If required, a pretest protocol report shall be submitted to MassDEP at least 30 days prior to emission testing and the final test results report shall be submitted within 45 days after emission testing.
- K. Pursuant to 310 CMR 7.01(3) and 7.02(3)(f), the Permittee shall comply with all conditions contained in this Plan Approval. Should there be any differences between provisions contained in the General Conditions and provisions contained elsewhere in the Plan Approval, the latter shall govern.

## **6. MASSACHUSETTS ENVIRONMENTAL POLICY ACT**

MassDEP has determined that the filing of an Environmental Notification Form (ENF) with the Secretary of Energy & Environmental Affairs, for air quality control purposes, was not required prior to this action by MassDEP. Notwithstanding this determination, the Massachusetts Environmental Policy Act (MEPA) and 301 CMR 11.00, Section 11.04, provide certain “Fail-Safe Provisions,” which allow the Secretary to require the filing of an ENF and/or an Environmental Impact Report (EIR) at a later time.

## **7. APPEAL PROCESS**

This Plan Approval is an action of MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of this Plan Approval.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts, which are the grounds for the request, and the relief sought. Additionally, the request must state why the Plan Approval is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to the Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

Commonwealth of Massachusetts  
Department of Environmental Protection  
P.O. Box 4062  
Boston, MA 02211

This request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

MassDEP may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

Enclosed is a stamped approved copy of the application submittal.

Should you have any questions concerning this Plan Approval, please contact Peter Russell by telephone at (508) 946-2821, or in writing at the letterhead address.

Sincerely,

This final document copy is being provided to you electronically by the  
Department of Environmental Protection. A signed copy of this document  
is on file at the DEP office listed on the letterhead.

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Thomas Cushing  
Permit Chief  
Bureau of Air and Waste

Enclosure

ecc (without enclosure):

New Bedford Board of Health  
New Bedford Fire Department  
Brittany - Robert Cruise, Anthony Francisco  
Steven Babcock, Tetra Tech  
MassDEP/Boston - Yi Tian  
MassDEP/SERO - Maria Pinaud, Laura Black, Peter Russell